

## Distribution of the Blue Rock Thrush in Malaya

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UNTIL 1940 the Blue Rock Thrush, *Monticola solitaria* (Linn.) was thought to be represented in Malaya only by migratory races. Chasen (1939: 318) stated that two sub-species visited Malaya, these being *M. s. pandoo* (Sykes), visiting us from breeding-grounds roughly north-west of Malaya, and *M. s. philippensis* (P.L.S. Müll.) coming from the north and north-east. The distinction between these two species is notable in the male. The male *pandoo* is entirely blue, whilst the male *philippensis* has a variable amount of reddish chestnut on the belly and under tail coverts. *M. pandoo* is known to breed not nearer than Simla, Sikkim and Tibet, and even over the greater part of India it is only a winter visitor. *M. philippensis* is known to breed in Northern Burma.

In November 1939, I saw my first Blue Rock Thrushes. These were a pair which I watched on the cliffs of the limestone massif at Baling, South-East Kedah. Something about their behaviour suggested to me that they might breed there; so in January and early February 1940, I sent my watcher, Che Abdul Majid bin Long to make an extensive search along the cliffs. Che Majid's thoroughness was rewarded, and on 5th February he called me to view a nest that he had found. The nest contained three eggs. The female, and later the male, were shot for positive identification.

In spite of my premonition about these birds, I was as surprised as was the late Mr. Chasen. Though this new male is all blue, like *pandoo*, Chasen found variations which convinced him that this was a new sub-species, which he described as *Monticola solitaria madoci*. (Bull. Brit. Orn. Club., 60, 1940: 97).

When preparing the Checklist, Gibson-Hill reviewed the evidence, and his conclusions are interesting. Robinson had described the all-blue *pandoo* as having occurred in many places in the Peninsula, and in many months from August onwards. But he cited only two formal records: one from the Larut Hills, and one from Batu Caves, Selangor, taken by Kloss. The former specimen is no longer available for checking; Chasen in 1940 made the Batu Caves specimen the type of the new race *madoci*. In fact Gibson-Hill found that the only fully substantiated pre-war records of *pandoo* were the type, and birds which I had collected at Kodiang and Baling in Kedah, and a male which I took on the cliffs

of Pulau Paya, 15 miles due west of Kuala Kedah, in November, 1940. At that time, Chasen wrote to me (*in litt.*) that this specimen was intermediate between the two migratory races *pandoo* and *philippensis*. Gibson-Hill reported taking *madoci* at Batu Caves Rock in 1947. Continuing his investigations he found insufficient evidence to justify the inclusion of *philippensis* on the Malayan list, and excluded it.

This leaves *madoci* as the dominant race in Malaya, and some systematists may doubt whether this Malayan race will remain valid. The racial differentiation between *madoci* and *pandoo* is small. In fact the races might not be separable in the field, a factor which would have condemned the creation of a Malayan race in my own eyes, were it not that it bears my name! I think that Chasen must have been much influenced by the gap of a thousand miles between the known breeding grounds of *pandoo* and *philippensis*, and the first nest that I discovered in Kedah.

This may be just an accident. This Rock Thrush seems to have a very limited habitat—the immediate neighbourhood of cliffs—and I doubt whether such places have been closely studied by ornithologists in Thailand and in South and Central Burma. Geographically I see no reason why the race we know as *madoci* should not extend north for many hundreds of miles, for there are limestone massifs dotted all the way up Peninsular Thailand from the Kedah frontier, through the Inland Sea of Singgora (Songkhla), Nakhorn Sri-thammarat, Phuket, Bandon, certainly as far north as Petchaburi, which is almost in the latitude of Bangkok. There are more rock masses near Lopburi, eighty miles north of Bangkok; and there may be others further north for all I know.

Unfortunately I did not get the opportunity to pursue my search for *Monticola* in Thailand. I did find a pair on a limestone crag in the Inland Sea of Singgora in March, and they were most clearly courting. Birds, mostly *pandoo* and just a few *philippensis*, have been recorded from many parts of north and central Thailand, nearly all in the last four months of the year.

*Distribution in Malaya.*—In 1940 I found a nest with eggs at Gunong Keplu, Kodiang, on the Kedah-Perlis border, in addition to the nest at Baling. I recorded birds on other limestone crags in North Kedah. In May of that year I saw a pair on a small islet in the Langkawi group, and one bird appeared to be carrying nesting material or food to a hole near the top of the cliff.

Since the Liberation I have had the opportunity to study the species closely at Batu Caves, Selangor. It is definitely a common breeding species there.

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Glenister (1951: 214) reports that he saw it frequently in tin mines in unspecified localities near limestone outcrops.

*Habitat.*—The species seems to stick very closely to limestone cliffs, mostly inland but sometimes beside the sea. Usually it seeks its food at the foot of the cliff, amongst stones and boulders, under trees and on their boughs. It also spends a lot of time fluttering from ledge to ledge of the cliff-face, apparently searching for food in crannies of the rock. Single birds often perch on high points of vantage, the top of a boulder or the summit of a pinnacle.

*Appearance.*—The male bird is a handsome shade of dark cobalt-blue all over. On the back, mantle and coverts this colour takes on various shades according to the light. Sometimes it appears very bright, and at times it looks bottle-green.

The female is a much more drab creature. The tail and wing quills are dusky brown. The remaining upper parts, including the head, are dull purplish-brown with a distinct blue wash. The sides of the face, the chin and throat are bluish heavily speckled with buffy white, as are the under tail coverts. The upper breast is speckled with pale rusty. The lower breast and the abdomen are purplish sparingly speckled with buffy white.

The bill is of typical Thrush shape: fairly short, sharply tapered, the culmen slightly arched. Both bill and legs are blackish. The total length is about 9 inches.

The silhouette, too, is typically thrush-like. The rather long tail extends about  $1\frac{1}{2}$  inches beyond the folded wings. The stance is upright and alert. The tail is frequently flicked upwards.

*Movements.*—On the ground, the bird progresses by hops and short runs, but it also takes very short flights of only a few feet. On the face of a cliff it progresses upwards in a series of short flutters from ledge to ledge. It descends from a cliff in a long, slow glide with the wing and tail quills fanned as fully as possible.

I do not know whether the bird indulges in prolonged flight. As it is a migrant, presumably it is capable of this. But in its ordinary domestic life flight is not extended beyond the confines of the quarry or the cliff-face which it tenants throughout the year. Apart from the slow downwards glide described above, which the bird employs quite often when chasing some slow-flying winged insect, flight usually is rapid and direct. The wing-beats are rapid and rather shallow, with a scarcely perceptible pause after every few beats. The tail feathers are slightly fanned. The flight silhouette and movements rather resemble those of a Bulbul. The bird seems to have no particular favoured flight-level. It is purely realistic: if it is moving from one cliff-top to another it flies at

cliff-top height; and if it is moving from one patch of ground to another, it flies close to the ground.

*Food.*—Food seems to be sought on the ground, on rock faces on the main branches of trees, and in the air; but mostly on the ground. Items of diet that I have been able to identify approximately are: spiders, caterpillars, worms, a very small snake and flying insects. Although there is a large number and variety of snails around these limestone cliffs, I have not seen the Rock Thrushes feeding on these.

*Song.*—This Thrush whistles a very pleasant little song, but seems to have only the one brief tune in its repertoire. It sings usually from a perch, such as a pinnacle of rock or the branch of a tree. During most of the year the song is feeble, and can be heard only at close range. But at the onset of the breeding season the male much increases the volume of his song. The tune is reminiscent of some of the notes of a Redstart.

I have heard a female sing on only one occasion, and that was when she was about to attack a female intruder. Her tune was the same as that of the male.

*Seasons.*—At Batu Caves I have had several pairs under fairly constant observation. I am satisfied that they are present throughout the year, and I have no evidence of migration. The breeding season in both Selangor and Kedah seems to be from February to April.

I have observed a male moulting heavily in October.

*Territory.*—At Batu Caves four pairs frequent a stretch of cliff about six hundred yards long; so far, I have located the nests of only two of these pairs. In February, 1953, I have seen three pairs all feeding together on the floor of a quarry within thirty yards of an occupied nest. I had supposed that this was common ground, until one morning when the female to whom the neighbouring nest belonged became very aggressive towards another female which was perching on a pile of stones. The attack began with the aggressor walking slowly and ominously, in a crouching attitude, towards the intruder, who was perching silently on a stone. Having approached within four feet, the aggressor stood bolt upright and began to sing loudly. (The same tune as the male; and the first time that I have heard the female Rock Thrush sing.) The tension seemed to relax for a minute after the end of the song. But suddenly the female flew up into the air and launched a furious attack from above upon the intruder. They indulged in a fierce semi-aerial battle for several seconds, and then drew apart. After that, they ignored each other. Nothing further happened, although the intruder did not retire. Both their mates were close at hand, but took no part in the quarrel.

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The only other sign of territorialism displayed on the quarry floor was that of the male to whom the nest belonged. Occasionally, when several Rock Thrushes were feeding together (often including his mate) he would appear from afar and would fly into the lower boughs of one of the trees which shade the feeding ground. There he would sing very loudly, moving from branch to branch. The other birds took no notice, and the meaning of the demonstration was not clear to me.

On two or three occasions I saw a strange male approach the cliff in which the nest was, at that time, not yet built. (It was obvious that the pair intended to build there, for they were examining every hole and cranny.) On such occasions the tenant male would fly close to the intruder, and sing very loudly. Sometimes he flew rather menacingly at the intruder, but never attacked him. I noted, on each occasion, that the male's ire seemed to be aroused because the intruder settled close to the female. The demonstration seemed to be due more to sexual jealousy than to trespass.

*Courting.*—Courting displays are of two main forms: (i) flight demonstrations by the male; (ii) song demonstrations by the male, accompanied by posturing. The flight demonstration consists of a sortie flight from some pinnacle of rock. The wing and tail quills are fully expanded, and the under-surface of the wing is made as concave as possible. This permits a very slow glide. Occasionally such a glide ends with the capture of a flying insect.

The song demonstration consists of the one tune in the Rock Thrush's repertoire. At the same time the male will raise the folded wings and the tail, or fan either or both, and he may adopt a crouching attitude.

The only active contribution made by the female was observed on a single occasion. The male was feeding on the floor of the quarry. The female flew down from the cliff, almost brushed his head, and then settled close to him. They then searched for food, a little apart, constantly calling and answering each other.

Courting displays continue whilst the pair search the cliff for a nesting site.

I have noted these courting displays from the first half of January to the first week of April.

*Nesting.*—The earliest date on which I have found a nest was 5th February. It contained a full clutch of fresh eggs. This was the original Baling, Kedah, nest. The other Kedah nest contained much incubated eggs on 22nd April. At Batu Caves, Selangor, I have had a nest with fairly fresh eggs on 25th February. I have also seen birds



carrying food to four other nests, all in the first week of April—two in 1951 and two in 1952. I have seen a fledgling learning to fly on 7th April.

The nest is placed in a narrow cleft in a cliff face. Usually on an overhanging face—no doubt to provide shelter from the rain and from seepage down the cliff face. Only the original Baling nest was fairly accessible; it was only 25 feet from the ground. All the others have been between 50 and 150 feet from the ground. The nest usually is only a few inches inside the mouth of the cleft. The clefts that I have seen have been of irregular shape, and have presented a rather small aperture—about 4 inches at the widest point.

The nest itself is a cup whose proportions vary to suit the shape of the cleft. Of three nests examined, two had cups about 4 inches across and very shallow; one inch deep in one case, and negligible in the other. The third nest was as much as 2 inches deep and only 21 inches across. The usual materials are dead grass, vine-stems, and palm-fibres. The nest from the Batu Caves quarry included a piece of time-fuze and some scraps of rope.

*Parental Duties.*—The female alone seems to build the nest. The male usually is in close attendance, encouraging her with song. It is also the female that chooses the nesting hole. For that purpose, she and the male examine the cliff at great length. The female enters likely holes to examine them whilst the male encourages her with song and with court-displays.

The male assists in the brooding of the eggs (at least, a male who had been bereaved of his mate did so). Both birds carry food to the nestlings.

*Eggs.*—I have had three clutches. Two consisted of three eggs each, and the third contained only two eggs, which were much incubated. I am of the opinion that three is the normal clutch.

These eggs measured:—

- (i)  $0.91 \times 0.66$  ins.,  $0.89 \times 0.67$  ins. and  $0.87 \times 0.69$  ins.
- (ii)  $1.02 \times 0.74$  ins.,  $1.00 \times 0.71$  ins. and  $1.00 \times 0.71$  ins.
- (iii)  $0.99 \times 0.74$  ins. and  $0.98 \times 0.73$  ins.

They are regular ovals, slightly tapered at one end. The shell is glossy. The ground colour is sky blue of varying shade. The two clutches from Kedah were very lightly marked at the blunt end with brown spots; very pale in one clutch, quite dark brown in the other. Two of the Selangor eggs are immaculate. The third is marked with a scarcely perceptible peppering of fine black spots, congregated mostly at the blunt end.

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*Conclusion.*—I have proved that the bird is resident, and breeds, at Batu Caves, Selangor, and at localities in Kedah which are far apart. Batu Caves is, I believe, the most southerly of the limestone outcrops which are such a distinctive feature of the Malayan landscape. I see no reason why this species may not be found as a resident on the many limestone crags in Perak, and again in Peninsula Thailand. There are also scattered limestone outcrops in Pahang and Kelantan; it would be interesting to know whether the species has crossed the main range of mountains and has established itself in the East Coast states.

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